

### Remarks

In the Office Action mailed July 5, 2005:

1. Claims 1-26 and 37-40 were rejected under 35 U.S.C. § 112 ¶ 1 as failing to comply with the enablement requirement;
2. Claims 1-36 were rejected under 35 U.S.C. § 112 ¶ 2 as being indefinite; and
3. Claims 1-40 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,754,816 (Layton).

#### I Rejections under 35 U.S.C. § 112 ¶ 1

In paragraph 2 of the office action, the Examiner stated “There is no support in the specification for equipment units ....” Applicant traverses. A reading of at least the Summary section of the application may be helpful in understanding the nature of Applicant’s invention. In the Summary (page 3, lines 11-16), it is stated:

a corresponding equipment unit is defined to describe one or more characteristics of the individual piece of equipment. Such characteristics may include power and/or cooling requirements, the size of the equipment, its weight, its data connectivity, etc. The characteristics may also include a functional capability of the equipment (e.g., number of processors, computational speed, amount of storage space).

In addition, the Examiner’s attention is invited to the Detailed Description of the application, where it is stated “an equipment unit (EU) is defined to represent a specific equipment configuration in terms of some or all of the equipment requirements described above” (page 9, lines 11-13). As it is apparently difficult to locate Applicant’s teachings regarding “equipment units,” “EUs” or “IEUs” (interchangeable equipment units – *see* page 10, line 24), the Examiner’s attention is further invited to the following portions of the application in which equipment units are discussed:

- page 4, lines 4, 5, 7
- page 9, lines 11, 13, 16, 19, 20, 24, 26, 27, 28
- page 10, lines 1, 6, 7, 10, 12, 15, 17, 18, 19, 21, 24, 25, 26, 27
- page 11, lines 1, 2, 5, 7, 13, 16, 24, 25, 26
- page 13, lines 9, 11, 13, 14, 17, 24
- page 14, lines 4, 11, 12, 13, 14, 18

- page 25, lines 7, 10, 13
- Fig. 2, items 200, 210, 220, 250
- Fig. 3, items 220, 200
- Fig. 4, items 404, 406
- Fig. 5, items 502, 504

As for the “input modules,” “profiler,” and “comparator” of claim 37, it is believed that one skilled in the art would understand the function and possible composition of these components.

For example, an “input module” would likely be understood to describe a module capable of receiving input, which may include data center capacities or computer equipment requirements. A “profiler” would likely be understood to be satisfied by another module capable of totaling all of the requirements for a set of computer equipment to generate a profile. A “comparator” would likely be understood to be satisfied by yet another module capable of comparing something, such as the total requirements determined by the profiler using the data center capacities.

Further, a profiler would likely be understood to be the component that is configured, in an embodiment of the invention, to generate the equipment profiles discussed, *inter alia*, at page 9, lines 13-15 and page 19, lines 7-8.

Similarly, a comparator would likely be understood to be the component that performs, in an embodiment of the invention, the comparison described at, *inter alia*, page 12, lines 11-13 and page 14, lines 1-2.

## II Rejections under 35 U.S.C. § 112 ¶ 2

*Claim 1:* The Examiner’s attention is directed to page 6, lines 1-5, as well as page 9, lines 11-13, Figures 2-3 and the other portions of the application cited above in Section I. These portions of the application reveal that “defining an equipment unit” can refer, in an illustrative embodiment of the invention, to the generation of a profile of a piece of equipment, with regard to its power requirements, cooling needs, size, weight, etc.

*Claim 18:* The Examiner’s attention is directed to page 6, lines 1-5, as well as page 9, lines 11-13, Figures 2-3 and the other portions of the application cited above in Section I. These portions of the application reveal that “defining an equipment unit” can refer, in an illustrative

embodiment of the invention, to the generation of a profile of a piece of equipment, with regard to its power requirements, cooling needs, size, weight, etc.

Combining characteristics may refer, for example, to the combination of power requirements of different computer systems, the combination of cooling requirements for different storage arrays, etc. The combination of characteristics is described at, *inter alia*, page 3, lines 17-23; page 12, lines 9-11 and page 14, lines 1-3.

*Claims 27, 36:* The Examiner's attention is directed to page 6, lines 1-5, as well as page 9, lines 11-13, Figures 2-3 and the other portions of the application cited above in Section I. These portions of the application reveal that "defining an equipment unit" can refer, in an illustrative embodiment of the invention, to the generation of a profile of a piece of equipment, with regard to its power requirements, cooling needs, size, weight, etc.

Combining requirements of computer components may refer, for example, to the combination of power requirements of different computer systems, the combination of cooling requirements for different storage arrays, etc. The combination of equipment requirements is described at, *inter alia*, page 3, lines 17-23; page 12, lines 9-11 and page 14, lines 1-3.

### III Layton (U.S. Patent No. 6,754,816)

Layton is directed to a Scalable Environment Data Calculation Method (title). Layton merely estimates resource usage of computer components in a particular configuration, and therefore cannot anticipate Applicant's invention.

#### **A. Layton Does Not Consider a Data Center's Capacities**

In an embodiment of the present invention, a method of configuring a data center (or "computer equipment operating area") is provided, wherein capacities of the data center (e.g., power, cooling, size) are compared to corresponding requirements of the equipment to be placed in the data center. In this embodiment, equipment units (EU) are defined for different pieces of equipment to describe the requirements of that equipment. Like requirements (e.g., power, cooling, size) of the equipment may then be aggregated to determine total requirements. Those total requirements may then be compared to the data center's capacities. If the equipment requirements exceed the data center capacities, the configuration of the equipment and/or the data center may be revised.

Layton merely provides a computer system and method for “estimating resource usage of components in a particular system configuration” (column 1, lines 60-62; column 2, lines 8-9). There is no mention of data center capacities, of comparing the estimated resource usage to such capacities, or of modifying the resources or the data center.

Because Layton does not consider a data center’s capacities, Layton need not and does not address “determining whether the capacities of the data center can accommodate said aggregated characteristics” (e.g., claims 1, 17), “identifying one or more limiting capacities of the computer operating area” and “if said combined characteristics exceed said limiting capacities, selecting a second subset of said computing equipment items” (e.g., claim 18), “determining whether the data center can accommodate said combined proxy requirements” (e.g., claims 27, 36) or “a comparator configured to compare said total requirements with said data center capacities” (e.g., claim 37).

#### **B. Layton Does not Define Equipment Units**

In an embodiment of the present invention, a method of configuring a data center (or “computer equipment operating area”) is provided, wherein capacities of the data center (e.g., power, cooling, size) are compared to corresponding requirements of the equipment to be placed in the data center. In this embodiment, equipment units (EU) are defined for different pieces of equipment to describe the requirements of that equipment. Like requirements (e.g., power, cooling, size) of the equipment may then be aggregated to determine total requirements. Those total requirements may then be compared to the data center’s capacities. If the equipment requirements exceed the data center capacities, the configuration of the equipment and/or the data center may be revised.

No portion of Layton was, or could, be cited against Applicant’s use of equipment units to capture various requirements of a piece of computer equipment. Layton merely receives a system configuration, retrieves a system requirement for the configuration from a computer readable medium and outputs the requirement (column 1, line 66 to column 2, line 4).

There is no mention of defining an equipment unit or similar construct, particularly not an interchangeable equipment unit (IEU) that represents requirements of interchangeable equipment.

#### IV Selected Claims

##### **A. Claims 1-17**

Claims 1 and 17 recite the definition of equipment units to aid in comparing total equipment requirements with the capacities of a data center. These claims also recite the determination of whether the data center capacities can accommodate the equipment requirements. As described above in Section III, Layton does not appear to teach or suggest this subject matter. Further, no specific portions of Layton were compared with the elements of claims 1 or 17.

Claims 1-17 are therefore considered in condition for allowance. If not allowed, the Examiner is requested to more clearly identify the portion(s) of Layton believed to anticipate the elements of claims 1-17.

##### **B. Claims 18-26**

Claim 18 recites the identification of a computer operating area's capacities, the creation of profiles or equipment units describing computing equipment items and determining whether the combined characteristics of a set of items exceeds the capacities. As described above in Section III, Layton does not appear to teach or suggest this subject matter. Further, no specific portions of Layton were compared with the elements of claim 18.

Claims 18-26 are therefore considered in condition for allowance. If not allowed, the Examiner is requested to more clearly identify the portion(s) of Layton believed to anticipate the elements of claims 18-26.

##### **C. Claims 27-36**

Claims 27 and 36 recite the definition of proxies or equipment units to aid in comparing total equipment requirements with the capacities of a data center. These claims also recite the determination of whether the data center capacities can accommodate combined proxy requirements. As described above in Section III, Layton does not appear to teach or suggest this subject matter. Further, no specific portions of Layton were compared with the elements of claims 27 or 36.

Claims 27-36 are therefore considered in condition for allowance. If not allowed, the Examiner is requested to more clearly identify the portion(s) of Layton believed to anticipate the elements of claims 27-36.

**D. Claims 37-40**

Claim 37 recites a first input module for receiving data center capacities and a comparator for comparing requirements of computer equipment with those capacities. As described above in Section III, Layton does not appear to teach or suggest this subject matter. Further, no specific portions of Layton were compared with the elements of claim 37. In Fig. 1 of Layton, no item is believed comparable to Applicant's first input module or comparator.

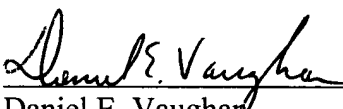
Claims 37-40 are therefore considered in condition for allowance. If not allowed, the Examiner is requested to more clearly identify the portion(s) of Layton believed to anticipate the elements of claims 37-40.

**CONCLUSION**

No new matter has been added with the preceding amendments. It is submitted that the application is in suitable condition for allowance. Such action is respectfully requested. If prosecution of this application may be facilitated through a telephone interview, the Examiner is invited to contact Applicant's attorney identified below.

Respectfully submitted,

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